Press release: Ready for crisis in outer space?

An annual assessment of the security of outer space warns that a crisis is looming if we do not constrain the use of force in outer space.

*Space Security Index 2016* tracks developments and activities in 2015 related to four indicators of the security of outer space – environmental sustainability, access to and use of space, technologies for space security, and space governance – to capture long-term changes.

According to project manager Jessica West of the Canadian peace-and-security think tank Project Ploughshares, the newly released 13th volume of the report is striking for its illustration of the growing emphasis on space as a domain of warfare.

Key findings in this year’s report:

- Key states continue to develop and demonstrate anti-satellite capabilities;
- Military tensions grow in outer space, linked to terrestrial hotspots such as the South China Sea and Eastern Europe;
- Military strategies in some states shift to a more aggressive use of outer space as a domain of warfare;
- Few mechanisms are being developed to restrict the use of force in outer space;
- The international community has so far failed to agree to the most basic guidelines on space activities.

A longtime advisor to the project, Theresa Hitchens of the Center for International & Security Studies at the University of Maryland argues that this shift from an assumption of stability in outer space to active preparations for instability and conflict is the most significant in the 13 years of SSI reporting.

In the included Global Assessment, Dr. Jana Robinson of the Prague Security Studies Institute argues that traditional threats stemming from the space environment—such as the growth of harmful debris, competition for radiofrequencies, signal interference, and space weather—persist, but that operators are now faced with “a growing array of multidimensional threats” from both “state and non-state actors, that are designed to deny or otherwise compromise space-related benefits.”

Reflecting on the potential for terrestrial military confrontations to spill over into outer space, Robinson questions whether the global community is prepared to manage an active counterspace situation and likely denial of service. Her answer is “almost certainly no.”

Actions to deny the use of outer space could have cascading consequences—for example, if they produced debris. An anti-satellite demonstration by China in 2007 created the largest ever debris cloud, which circled Earth and eventually spread throughout heavily congested space in Low Earth Orbit.

And it’s not clear if and how a confrontation in outer space could be contained. Dr. Laura Grego of Union of Concerned Scientists points out that in war games, attacks on satellites can escalate a conflict in serious and unpredictable ways.

But space is not of importance only to the military. As the SSI report indicates, industry, human development and security, environmental monitoring, disaster response, and economic growth everywhere in the world depend on space-based services and information. In 2015 there were
• 1,419 active satellites
• 70 civil space programs
• 87 attempted satellite launches by 7 states
• 190 individual spacecraft launched
• 56 states owning satellites
• more than 2,000 lives saved because of Cospas-Sarsat
• new space venture investments valued at $1.5-billion
• satellite industry revenues of $208-billion.

Maintaining a safe and stable operating environment in outer space is critical for everyone.

Space Security Index 2016 is produced by a group of international organizations led by the Canadian nonprofit organization Project Ploughshares. Other partners include The Simons Foundation in British Columbia; the Institute of Air and Space Law at McGill University in Montreal; the Space Policy Institute at The George Washington University in Washington, DC; the University of Adelaide Law School Research Unit on Military Law and Ethics in Australia, and the School of Law at Xi’an Jiaotong University in China.

Download the Executive Summary or purchase the full report at www.spacesecurityindex.org or contact jwest@ploughshares.ca.